

Numark[®]

Professional Disc Jockey Products

TT-100

DIRECT DRIVE TURNTABLE

OWNER'S MANUAL



Safety Information



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE ANY COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

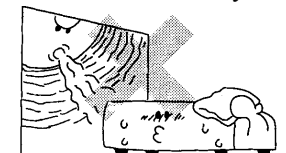
The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this appliance.

CAUTION

FOR USA & CANADIAN MODELS ONLY
TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

SAFETY INSTRUCTIONS

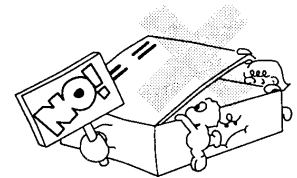
- Read Instructions - All the safety and operating instructions should be read before this product is connected and used.
- Retain Instructions - The safety and operating instructions should be kept for future reference.
- Heed Warnings - All warnings on this product and in these operating instructions should be followed.
- Follow Instructions - All operating and other instructions should be followed.
- Water and Moisture - This product should be kept away from direct contact with liquids.
- Heat - Avoid placing this product to close to any high heat sources such as radiators.
- Ventilation - The appliance should be situated so that it's location or position does not interfere with it's proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation opening; or, placed in a built-installation, such as bookcase or cabinet that may impede the flow of air through the ventilation openings.



- Power Sources - This product should be connected to a power supply only of the type described in these operating instructions, or as marked on the unit.
- Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked upon or pinched by items placed on or against them. When removing the cord from a power outlet be sure to remove it by holding the plug attachment and not by pulling on the cord.




- Object and Liquid Entry - Take care that objects do not fall into and that liquids are not spilled into the inside of the mixer.
- Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
- Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for long periods of time.
- Damage Requiring Service - Only qualified personnel should service this product. If you have any questions about service please contact Numark at the number(s) shown on the back cover of this manual.



- Grounding or Polarization - Precautions should be taken so that the grounding or polarization means built into the CD player is not defeated.
- Internal/External Voltage Selectors - Internal or external voltage selector switches, if any, should only be reset and re-equipped with a proper plug for alternative voltage by a qualified service technician. Do not attempt to alter this yourself.

WARNING: To reduce the risk of fire or electrical shock, do not expose this appliance to rain or moisture. Electrical equipment should NEVER be kept or stored in damp environments.

SERVICE INSTRUCTIONS

- Disconnect power cord before servicing
- Replace critical components  only with factory parts or recommended equivalents
- For AC line powered units - Before returning repaired unit to user, use an ohmmeter to measure from both AC plug blades to all exposed metallic parts. The resistance should be no more than 100,000ohms.

IMPORTANT INFORMATION...

Please read this entire manual before connecting the unit to your system.

For optimum performance:

1. Always make sure that AC power is OFF while making any connections.
2. **Do not force the platter to stop moving while the motor is engaged. Quality slipmats should be used to hold records in position. Forcing the motor to stop can damage the motor assembly.**
3. **Never use spray cleaners or oils on the slide control. Residues cause excessive dirt build-up and this will void your warranty. In normal use slide controls can last for many years. If they malfunction (usually because of a dirty or dusty environment)**
4. Never attempt to make any adjustments or repairs other than those described in this manual. Take the TT-100 to your dealer or to an authorized **Numark** Service Center.
5. Do not place the unit in a location where it will be exposed to direct sun light or near a heating appliance.
6. Do not place the unit in a location where there is high humidity or a lot of dust.
7. Cartridge may pick up slight sound pressure or vibrations of the speakers coming along the floor or through the air resulting in howling. Find a location, which is very stable and free of vibration.
8. The legs have functions for adjusting the height of the unit itself. Adjust the legs to stabilize the main body horizontally.

A NOTE ON CABLES:

Quality cable makes a big difference in audio fidelity and punch. See your **Numark** dealer or an electronics or audio specialist store if you are not sure which cables to get.

GENERAL SYSTEM PRECAUTIONS

- Use appropriate cables throughout your system: Quality shielded audio cables and terminated shielded video cables, low-capacitance preferred. Speaker cables must be 14-gauge minimum; 12- or 10-gauge is better.
- Be sure plugs and jacks are tightly mated. Loose connections can cause hum, noise or intermittent that could easily damage your speakers.
- Reliability will be enhanced through the use of banana connectors on the speaker wires. Observe correct speaker wire polarity. If in doubt, consult your **Numark** dealer or a qualified technician.
- Take care to connect only one cable at a time. Pay attention to the color-coded, labeled Input and Output jacks.
- **ALWAYS** remember: ***“TURN AMPS ON LAST AND OFF FIRST”***. Begin with master faders or volume controls on minimum and the amplifier gain/input control(s) down. Wait 8 to 10 seconds before turning up the volume. This prevents transients, which may cause severe speaker damage.
- Use restraint when operating controls. Try to move them slowly. Rapid adjustments could damage speakers due to amplifier clipping.
- Avoid amplifier “clipping” at all costs: this occurs when the red LEDs (usually on the front panel of most professional power amplifiers) start flashing. “Clipping” is when the power amplifier is distorting and working beyond it’s limits. Amplifier distortion is THE major cause of speaker failure.
- To prevent fire or shock hazard, do not expose the unit to rain or moisture. **Never place cans of beer, soda, glasses of water or anything wet on top of the turntable!**

Numark[®] TT-100

PROFESSIONAL DIRECT-DRIVE TURNTABLE

CONGRATULATIONS!

You are now the owner a **Numark TT-100** Direct Drive Turntable. This unit has been designed to deliver solid performance at a reasonable price. With its full selection of adjustment features the **Numark TT-100** offers essential control to the user. Enjoy this turntable and remember:

BE CREATIVE!

Thank you for buying Numark DJ products!

FEATURES:

- ± 10 or 20% pitch adjustment
- Direct Drive Motor
- Start/Stop Button
- Electronic Braking
- 33/45/78 RPM speeds
- Forward and Reverse Platter Direction
- Pop-up Stylus Target Light
- Adjustable Feet for Leveling
- Easily removable smoked plastic lid
- Quartz Lock of 0% speed position
- 45RPM adapter and holder
- Extra Stylus Holder
- S Shaped Tone arm assembly with:
 - Counterweight
 - Height Adjustment
 - Skating Adjustment
 - Height Lock
 - Lever lift with height adjustment
 - Tone arm holder with locking mechanism
- Output for:
 - Audio {Left Right & Ground}
 - Platter Speed – to be used with external process devices
 - External START/STOP control

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Contents of this package

- Main Unit 1
- Turntable platter 1
- Turntable slip mat 1
- Dust cover 1
- Dust cover clips 2
- 45-rpm adapter 1
- Counterweight 1
- Headshell 1

Product Registration

Please record the serial number of your unit as shown on the chassis, under the platter, as well as the name of the dealer from whom you purchased the unit. Retain this information and your original purchase receipt for your records. Please return the enclosed warranty card to register your unit with us.

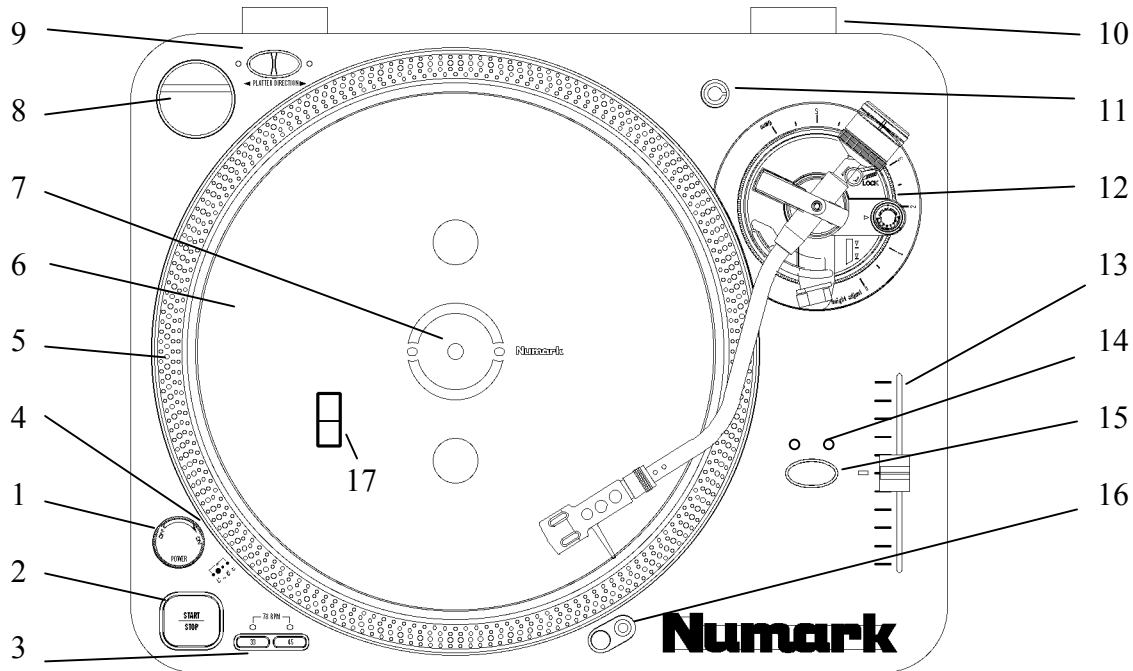
MODEL: _____

PURCHASED FROM: _____

SERIAL NUMBER: _____

DATE OF PURCHASE: _____

DIAGRAM AND PARTS DESCRIPTION



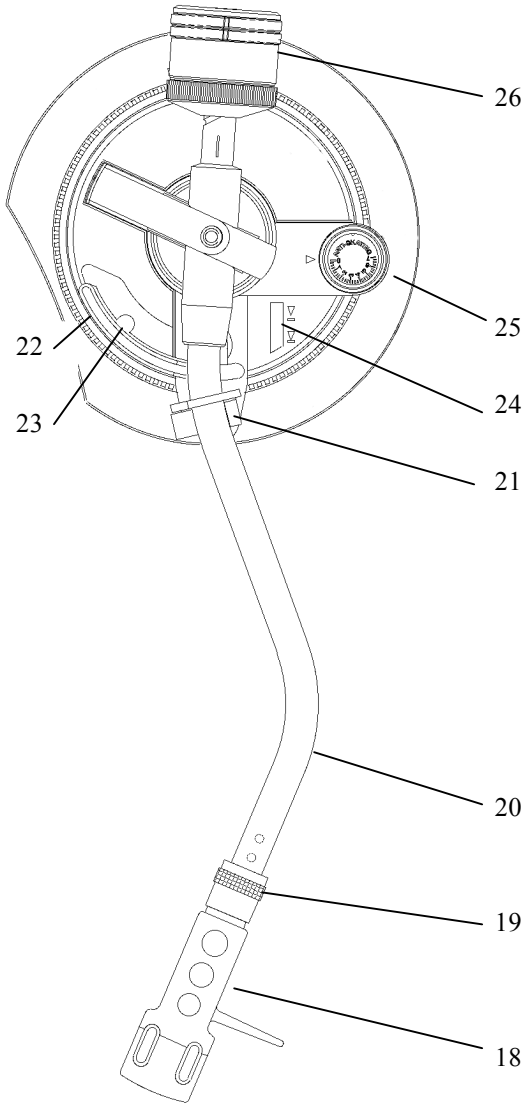
To fully appreciate the features of the **Numark** TT-100, please read this entire manual before you begin operation. The TT-100 should be placed on a level sturdy surface. Keep in mind that there are a few features you may never have seen before on a turntable of this type that you will need to read about to use properly.

Start by removing all parts from the package and place on a level surface. Carefully check all packing material for hidden parts. Use the contents guide for reference. **Do not discard any packing materials!**

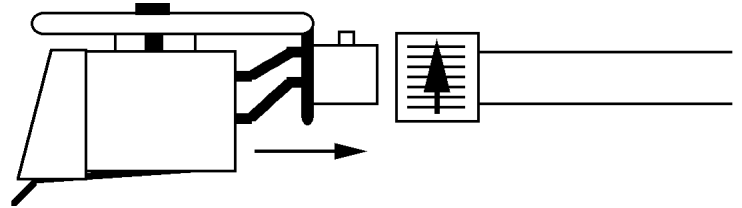
- | | |
|---|---|
| <p>1. Power Dial
On - Rotate Right
Off - Rotate Left</p> <p>2. START/STOP - Pressing once engages high torque motor; pressing again engages brake.</p> <p>3. Platter Revolution Speed Buttons
33rpm - Press 33
45rpm - Press 45
78rpm - Press 33 and 45</p> <p>4. Strobe Light - Pulses a beam of light at the Strobe Dots. The large dots will seem not to move when pitch is 0%.</p> <p>5. Strobe Dots - Four rows of dots that indicate various stages in pitch adjust.
-3.3% - outer row
0% - large dots
+3.3% - next row
+6% - inner row</p> <p>6. Platter - Place this on the Center Spindle.</p> <p>7. Center Spindle - Keeps platter and records centered. Place the supplied slipmat on the Center Spindle now.</p> <p>8. 45 Adapter - Place on Center Spindle for playing 7" records with large center holes.</p> | <p>9. Forward/Reverse Buttons - Determine the direction the platter will spin.</p> <p>10. Lid Hinge Holder - Place the bottom tabs of your lid hinges in here after you finish assembly.</p> <p>11. Extra Stylus Holder - Place an extra headshell here.</p> <p>12. Tone Arm Assembly - Explained in tonearm section</p> <p>13. Pitch Adjust - Use this to change the speed of the platter when quartz lock is inactive.</p> <p>14. Pitch Percent Indication - Shows the amount of pitch change possible</p> <p>15. Quartz Lock
On - will hold the revolution speed to 0%
Off - will allow use of the Pitch Adjust
HOLD DOWN- to alternate from 10% to 20% Pitch</p> <p>16. Target Light - Press the button to the right and a light will pop up directed at the stylus position.</p> <p>17. Voltage Selector - With unit unplugged set the desired voltage for your location using a screw driver.</p> |
|---|---|



TONE ARM ASSEMBLY



19. Headshell Locking Nut - Attach headshell by inserting into the front end of the tonearm, then turn the locking nut clockwise with the head shell firmly held horizontally.



20. S-Shaped Tone Arm

21. Tone Arm Clamp and Rest - Use this rest for the tone arm and clamp it in position during transportation.

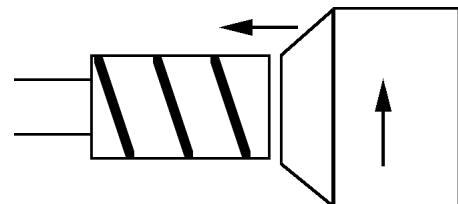
22. Tone Arm Lift - This elevates the tone arm above the record surface.

23. Tone Arm Lift Adjust Screw - Controls the amount of lift.

24. Tone Arm Lever - Controls the up and down action of the Tone Arm Lift.

25. Anti-Skate Control - This applies inward force to the tonearm so it doesn't skip outward across the record due to the centrifugal force of the record spinning. Cartridge manufacturers usually specify the proper setting of this.

26. Counterweight - Adjustment creates the proper downward pressure of the stylus to the record. Attach now by sliding the counterweight onto the rear of the tonearm. Twist it lightly and it will screw onto the rear shaft of the tonearm.



18. Headshell- Install cartridge here. When installing a cartridge, refer to the installation instructions supplied by the manufacturer of that cartridge. During installation, attach the stylus protector to guard the stylus tip from damage.

Attach wires as follows:

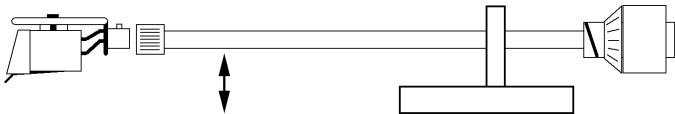
- White (L+) Left channel +
- Blue (L-) Left channel
- Red (R+) Right channel +
- Green (R-) Right channel

PRO TT-2 Turntable

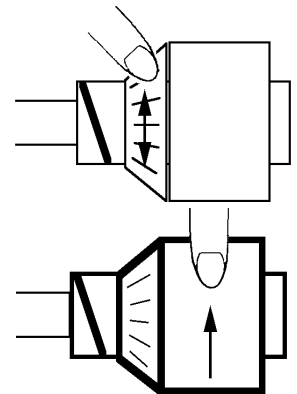
STONE ARM SETTINGS

The following explains proper counterweight and anti-skating set up. Cartridge manufacturers usually specify the proper settings.

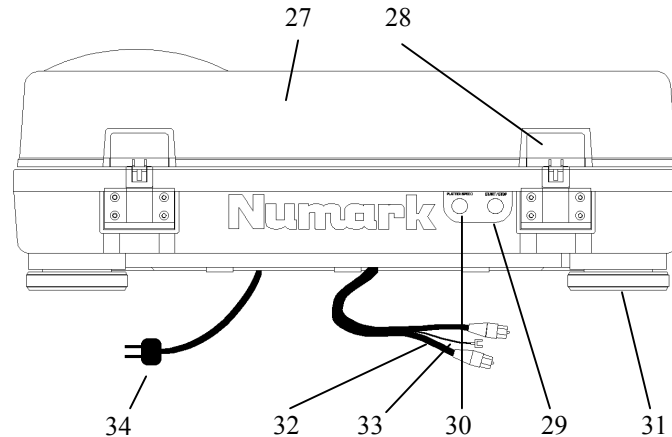
- a) Remove the stylus protector, do not touch the stylus tip during the adjustment.
- b) Set the cueing lever to the lower position so it does not effect tone arm height.
- c) Set Anti-skate adjustment to 0.
- d) Place counterweight on the rear of the tone arm
- e) Release the arm clamp and lift the tonearm from the arm rest so it moves freely.
- f) Rotate the counterweight until the tonearm is approximately balanced horizontally (floats freely).



- g) Refasten the tonearm with the arm clamp.
- h) Hold the counterweight stationary with one hand and rotate only the stylus-pressure ring to bring the number "0" of the ring into alignment with the center line on the tonearm rear shaft.
- i) Rotate the counterweight with scale ring clockwise to the correct stylus pressure following the manufacturer's recommendation.
Note: Failure to follow recommended stylus pressure could damage both the stylus and record. This can also seriously degrade performance.
- j) Set the anti-skating control knob to the same value as the stylus pressure, unless your manufacturer specifies otherwise.



REAR PANEL DIAGRAM



- 27. Removable Lid - Protects the turntable from dirt and dust.
- 28. Hinge Assembly - Holds the lid and turntable together. Attach now by sliding the bottom tabs of the Hinge Assembly into the Hinge Holders.
- 29. Platter Speed Output - This output is to be used with external devices that require platter speed information.
- 30. Remote Start/Stop - This is used with external control devices.
Tech note: This circuit is normally open. Use a momentary switch and a 1/4" mono plug, to change play states of the unit.
- 31. Adjustable Feet - Turn feet to level the platter surface.
- 32. Phono Output - Plug these into your mixer or preamplifiers' turntable input.
- 33. Ground Cable - Attach to the ground screw on your mixer or preamplifier to prevent turntable hum.
- 34. Power Cord - Plug this into an appropriate power outlet after checking your power setting switch (18) under the platter. Note: Please refer to CAUTION on page 2 concerning proper use of power.

Your assembly should now be complete. Place your turntable on a vibration free level surface and attach to your mixer or preamplifier. If you are using the turntable for slip cueing, scratching, or beat mixing music you will want to use a slipmat and not a rubber mat. Do not force the platter to stop moving while the motor is engaged. Quality slipmats should be used to hold records in position. Forcing the motor to stop can damage the motor assembly.

GENERAL OPERATING INSTRUCTIONS

1. Turn the power dial to turn on and the speed indicator and the strobe-illuminator will light up.
2. Turn on and raise the target light for illuminating the stylus tip by pushing the target light button.
3. Place a record on the turntable mat. When playing a 45rpm record with a large center hole; place the 45-rpm adapter on the center spindle.
4. Set the rotation speed (33/45/78) to match the record.
5. Release the arm clamp.
6. Set the cueing lever to the up position.
7. Press the Start/Stop button and the turntable platter will start to rotate.
8. Move the tonearm over the desired groove.
9. Set the cueing lever to the down position, the tonearm will descend slowly onto the record and play begins.
10. Set the desired pitch adjust range by depressing the QUARTZ button until the desired pitch is reached. Options are +/-10% or +/-20%.
11. Adjust the pitch to a desirable speed. During play, observe the strobe dots. If the strobe dots appear to the right, the pitch is slower than the rated speed. If they flow to the left, the pitch is faster than the rated speed. If the strobe dots appear stationary, which means the platter is in normal turntable speed, move the pitch control slider up or down to adjust the speed.
12. To suspend play, lift tone arm with cueing lever.
13. When play is finished, raise the cueing lever, move the tonearm to the armrest and secure the tonearm with the arm clamp.
14. Turn off the target light off by pushing the light back down.
15. Press the Start/Stop button to stop the platter rotating.
16. Turn the power dial to turn off the power.

MAINTENANCE

Routine maintenance should be performed by cleaning the stylus periodically with a soft brush to prevent the accumulation of dust. When the sound becomes distorted or noisy, check the stylus. If it is worn out, replace with a new one. From time to time, the dust cover and turntable cabinet should be wiped with a soft, dry cloth. Use of any volatile materials as alcohol, thinner, benzene, etc., may remove the paint or damage the luster and should not be used.

SPECIFICATIONS

TURNTABLE SECTION

Type	3-speed, full manual
Driving method	Direct drive
Motor	12 Pole, 3 Phase, Brushless DC Motor
Turntable platter	Aluminum diecast 330mm dia.
Turntable speed	33-1/3 , 45, and 78 rpm
Pitch Variance	±20%
Starting Torque	more than 1.0kgf.cm
Braking	Electronic

OUTPUT

Wow and flutter	< 0.13%
S/N ratio	> 50dB (DIN-B)
Output Difference	2.3dB
Channel Separation	16dB
Pitch	675±1Hz with 33 1/3 rpm 1170±1Hz with 78 rpm

TONARM SECTION

Type	Static Balanced S-shaped with detachable headshell
Effective length	234mm
Overhang	20mm
Tracking Force	0-4g
Anti-Skate	0-7g
Cartridge Weight	6-10g

GENERAL

Power supply	AC110-127V / 220-240V, 50/60Hz
Power consumption	15 Watts
Dimension (W x D x H)	450 x 352 x 148.5 mm 17 3/4" x 13 3/4" x 5 7/8"
Weight	10.3 Kgs 24 lbs.

Specifications and design may be changed without notice for improvement

Numark®

Professional Disc Jockey Products

LIMITED PRODUCT WARRANTY

What is covered and for how long?

1. NUMARK INDUSTRIES LCC ("NUMARK") warrants to the original purchaser that NUMARK'S DJ mixers and amplifiers are free from defects in material and workmanship under normal use and service for the period commencing upon the date of purchase from an authorized NUMARK dealer and continuing for the following period of time after that date for (2) Years. The warranty is extended to (3) Years with the completion of the warranty card provided that the warranty card is completed and returned within (30) days from the date of purchase. All other NUMARK products are warranted for (1) Year including but not limited to CD players, CD Mix Stations, turntables, preamplifiers, beatkeepers, equalizers, microphones, headphones, cartridges, and all other accessories.

What is not covered? This Limited Warranty is conditioned upon proper use of the product by the purchaser.

2. This Limited Warranty does not cover: (a) defects or damage resulting from accident, misuse, abuse, neglect, unusual physical or electrical stress, modification of any part of the product, or cosmetic damage; (b) equipment that has the serial number removed or made illegible; (c) all plastic surfaces and other externally exposed parts that are scratched or damaged due to normal use; (d) defects or damage from improper testing, operation, maintenance, installation, adjustment, or service of the mixers; (e) crossfaders.
3. What are NUMARK'S obligations? During the applicable warranty period, NUMARK will repair or replace, at NUMARK'S sole discretion, without charge to the purchaser, any defective component part of the mixer. To obtain service under this Limited Warranty, purchaser must first contact NUMARK and obtain a return authorization number ("RA#"). Purchaser must then return the mixer to NUMARK in an adequate container for shipping, accompanied by purchaser's sales receipt or comparable proof of sale showing the date of purchase, the serial number of the product, and the seller's name and address. To obtain an RA# and assistance on where to return the mixer, contact NUMARK customer service at 401-295 9000. Upon receipt, NUMARK will repair or replace the defective products. NUMARK may, at NUMARK'S sole discretion, use rebuilt, reconditioned, or new parts or components when repairing any product or replace a product with a rebuilt, reconditioned or new product. Repaired mixers will be warranted for a period equal to the remainder of the original Limited Warranty on the original mixer or for (90) days, whichever is longer. All replaced parts, components, boards and equipment become the property of NUMARK. If NUMARK determines that any mixer is not covered by this Limited Warranty, purchaser must pay all parts, shipping, and labor charges for the repair or return of such mixer.
4. What are the limits on NUMARK'S liabilities? THE WARRANTIES GIVEN IN THIS LIMITED WARRANTY, TOGETHER WITH ANY IMPLIED WARRANTIES COVERING NUMARK MIXERS, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, NUMARK SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, LOSS OF PROFITS, DAMAGES TO PURCHASER'S PROPERTY, OR INJURY TO PURCHASER OR OTHERS ARISING OUT OF THE USE, MISUSE OR INABILITY TO USE ANY NUMARK MIXER, BREACH OF WARRANTY, OR NEGLIGENCE, INCLUDING BUT NOT LIMITED TO NUMARK'S OWN NEGLIGENCE, EVEN IF NUMARK OR ITS AGENT HAS BEEN ADVISED OF SUCH DAMAGES, OR FOR ANY CLAIM BROUGHT AGAINST PURCHASER BY ANY OTHER PARTY. THIS LIMITED WARRANTY IS THE COMPLETE WARRANTY FOR NUMARK'S MIXERS, AND IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. THIS LIMITED WARRANTY SHALL NOT EXTEND TO ANYONE OTHER THAN THE ORIGINAL PURCHASER OF THIS PRODUCT AND STATES PURCHASER'S EXCLUSIVE REMEDY. IF ANY PORTION OF THIS LIMITED WARRANTY IS ILLEGAL OR UNENFORCEABLE BY REASON OF ANY LAW, SUCH PARTIAL ILLEGALITY OR UNENFORCEABILITY SHALL NOT AFFECT THE ENFORCEABILITY OF THE REMAINDER OF THIS LIMITED WARRANTY WHICH PURCHASER ACKNOWLEDGES IS AND WILL ALWAYS BE CONSTRUED TO BE LIMITED BY ITS TERMS OR AS LIMITED AS THE LAW PERMITS.
5. This Limited Warranty allocates risk of product failure between purchaser and NUMARK, and NUMARK'S product pricing reflects this allocation of risk and the limitations of liability contained in this Limited Warranty. The agents, employees, distributors, and dealers of NUMARK are not authorized to make modifications to this Limited Warranty, or make additional warranties binding on NUMARK. Accordingly, additional statements such as dealer advertising or presentation, whether oral or written, do not constitute warranties by NUMARK and should not be relied upon.
6. How does state law apply to this warranty? SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO PURCHASER.
7. This Limited Warranty gives you specific legal rights. You may also have other rights, which vary from one jurisdiction to another.

RETURN INFORMATION

- (1) A Return Authorization number must be obtained from Numark through the address or phone numbers below.
- (2) A copy of the original sales receipt must also be included for the equipment to be repaired under warranty.
- (3) The faulty equipment must be packed in its original packaging.
- (4) One additional outer layer of packaging must be included to ensure product safety. Failures to do so may inadequately protect the equipment in transit and, therefore, jeopardize the customer's warranty.
- (5) Numark will not accept COD shipments and no call tags will be issued for merchandise return.
- (6) Numark will not return repaired merchandise to customers by priority service, unless by written request at the customer's cost. Requests must be submitted in writing with merchandise returned.
- (7) The defective Numark equipment should be sent, FREIGHT PREPAID with Return Authorization number clearly printed on the outer packaging and original sales receipt enclosed to:

Numark INDUSTRIES
Attention: Service Department
11 Helmsman Avenue
North Kingstown, RI 02852 USA

Phone: +1 (401) 295-9000
Fax: +1 (401) 295-5200
Web: www.numark.com